



**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE  
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES**

**On Appeal to the Board of  
Appeals and Interferences**

Appellant(s) : Chris Boardman                      Examiner: Michael C. Heck  
Serial No. : 09/730,266                      Group Art Unit: 3623  
Filed : December 5, 2000  
Title : SYSTEM AND METHOD FOR ESTIMATING PRODUCT  
DISTRIBUTION USING A PRODUCT SPECIFIC UNIVERSE

**APPEAL BRIEF**

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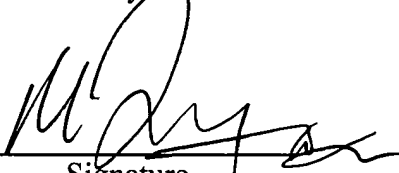
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**A P P E A L B R I E F**

Commissioner for Patents  
U.S. Patent and Trademark Office  
P.O. Box 1450  
Alexandria, VA 22313-1450

Sir:

On August 3, 2005, Appellants filed a Notice of Appeal from the final rejection of twice-rejected claims 1-18 contained in the Office Action dated on May 12, 2005. The Notice of Appeal was received by the U.S. Patent and Trademark Office on August 5, 2005.

Applicants hereby timely submit, pursuant to 37 C.F.R. § 41.37, an Appeal Brief in support of the appeal of the rejection of pending claims 1-18.

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**I. REAL PARTY IN INTEREST**

The real party in interest is IMS Health Incorporated, 660 West Germantown Pike, Plymouth Meeting, Pennsylvania 19462. ("IMS Health"). IMS Health is the assignee of the entire right, title, and interest in the present application by way of Assignment dated December 4, 2000 recorded on December 5, 2000 at Reel 011339 and Frame 0863.

**II. RELATED APPEALS AND INTERFERENCES**

None.

**III. STATUS OF CLAIMS**

Claims 1-11 that are directed to a computer programmed to perform a method for estimating the sales of specialty products, and claims 12-18 that are directed to a system for estimating the sales of specialty products, stand finally rejected under 35 U.S.C. § 103(a) as allegedly being obvious from Felthauser et al. U.S. Patent No. 5,420,786 (“Felthauser”) in view of Steven Berne, Supply Chain Savvy, Food Engineering (August 1, 1999) (“Berne”). Claims 1-11 also stand rejected under 35 U.S.C. § 112, second paragraph, as being indefinite.

**IV. STATUS OF AMENDMENTS**

Applicants are submitting after-final amendments to claims 1-11 on even date.

The amendments address the 35 U.S.C. § 112 indefiniteness rejection of claims 1-11 and place the application in better shape for Appeal. Entry of the amended claims, which has been requested, is pending.

**V. SUMMARY OF CLAIMED SUBJECT MATTER**

The invention described in the above-identified application is directed to systems and programmed computers for estimating the sales of “specialty” products that have neither a broad retail usage base nor a uniform retail distribution pattern. (See e.g., specification, page 1 lines 5-8). Specialty products are products (e.g. pharmaceutical products) that may have a specialized usage base, i.e. specialized consuming population (e.g., HIV or Alzheimer patients), or products whose distribution requires special infrastructure or handling (e.g., refrigeration). (Specification, page 4, lines 5-8, page 7, lines 16-21). The specification uses the phrase “store size” refers to the volume of sales of the specific product of interest. (Specification, page 10 lines 6-7).

Prior art estimation techniques for store sizing are based on statistical sampling of retail outlet sales assuming geographical uniformity and homogeneity in the universe of outlets (i.e. in the marketplace). Actual sales data from sampled outlets in the universe of outlets is geo-spatially projected or extrapolated to estimate sales at non-sampled outlets. (See e.g. Felthouser, Abstract and Summary of Invention). The lack of market uniformity and inhomogeneity in the case of specialty products renders the prior art techniques inappropriate for estimating the “non-uniform” sales volume of such specialty products. (Specification, page 4, lines 5-8, page 7, lines 16-21).

The invention involves estimating sales of specialty products at a retail outlet by geo-spatial projection or extrapolation of more general product sales data from broader and complete universes of retail outlets. Two substantially “non-overlapping” universes of outlets are established. (Specification, page 4 lines 18-22, page 7 lines 16-21). The first universe of outlets is defined based on wholesale product distribution or sales data (e.g., “DDD\$ database”).



(Specification, page 4 lines 18-22, page 7 lines 16-21, page 9 lines 2-12, and FIG. 3). The second universe of retail outlets, which primarily includes retail outlets that are not included in the first universe, is based on sampled retail sales data (e.g., “TRX\$ database”). (Specification, page 4 lines 18-22, page 7 lines 16-21, page 9 lines 13-18, and FIGS. 3 and 5).

Geo- spatial projection factors are established for retail outlets in both the first and second universes. The geo-spatial projection factors are generated using methods that assign weights to sampled retail outlet data in select geographic regions according to distance from a subject unsampled retail outlet. For example, “DDD\$ based weights projection weights” and “TRX based projection weights” are assigned based on analysis of the first and second universe data. (See e.g. Specification, FIG. 3).

According to the invention, the projections from the two universes of outlets are combined to obtain realistic and useful estimates of “specialty” product sales data at unsampled retail outlets. (See e.g., Specification, page 11 lines 11-14, and FIGS. 1-3).

As defined by independent claims 1, 7 and 12, “store sizing” for specialty products involves first defining two product-specific retail outlet universes. A first product specific universe is defined using wholesale purchasing data to determine a product-specific store size for a first plurality of retail outlets. A second product specific universe is defined using sampled retail sales data to determine a product specific store size for a second plurality of retail outlets.

Next, geo-spatial projection is applied to both the first product specific universe and the second product specific universe to determine product specific projection factors for retail outlets in the first and second universe. These product specific projection factors are then applied to sampled retail sales data to estimate the sales of the specialty product in unsampled outlets.

**VI. GROUND OF REJECTION TO BE REVIEWED ON APPEAL**

The rejection of claims 1-18 under 35 U.S.C. § 103(a) as allegedly being obvious from Felthauser et al. U.S. Patent No. 5,420,786 ("Felthauser") in view of Steven Berne, Supply Chain Savvy, Food Engineering (August 1, 1999) ("Berne").

**VII. ARGUMENT**

The Examiner's has improperly rejected claims 1-18 under 35 U.S.C. § 103(a) as being obvious from Felthausen and Berne. The Examiner's Rejection is incorrect and should be reversed.

Felthausen, which is commonly assigned to IMS Health, teaches estimating sales activity of a product by determining the distances between first sales outlets (i.e. sampled outlets) for which actual sales activity data (e.g., retail sales or prescribing physician activity) is available and other sales outlets (i.e. unsampled outlets) and correlating sales activity data according to the determined distances between the first and the other sales outlets. (Felthausen, col. 2, line 51 – col. 3 lines 9). In other words, Felthausen teaches a method for estimating sales activity of a product at an unsampled retail sales outlet using sampled outlets and the distances between the sampled and unsampled outlets. Felthausen's method is an appropriate method for estimating the sales activity of a product that has a uniform retail distribution pattern. However, Felthausen's method is insufficient for estimating sales activity of a specialty product, which has a non-uniform or inhomogeneous retail distribution pattern.

Felthausen fails to disclose or suggest the rejected claims directed to store sizing of "speciality products" in a non-uniform or inhomogeneous marketplace. In particular, Felthausen does not disclose supplementing data from the "retail" universe of outlets with data from a "wholesale" universe of outlets to obtain a more complete or valid description of the market for extrapolation.

In particular with respect to claims 1, Felthausen does not show, teach or suggest:

“defining a first product specific universe using wholesale purchasing data to  
determine a product specific store size for a first plurality of retail outlets;

[and]

defining a second product specific universe using sampled retail sales data to  
determine a product specific store size for a second plurality of retail  
outlets;”

Similarly, Felthausen does not show, teach or suggest similar limitations in claims 7 and  
12.

Further, with respect to claims 1, 7 and 12, Felthausen does not show, teach or suggest  
combining the two distinct (i.e., wholesale and retail) store sizings for geo-spatial projection onto  
unsampled outlets.

The Examiner acknowledges as much by correctly noting that Felthausen fails to teach  
the use of wholesale data. (See e.g., Office Action page 8 line 14). However, the Examiner  
mistakenly states “that sales data regardless of source is still sales data” and disregards the two  
distinct store sizings and subsequent combination of two geo-spatial projections that are required  
by applicant’s claims. (See e.g., Office Action page 5 section 9).

The shortcomings of Felthausen are not addressed or overcome by Berne.

Berne relates to supply chain management for product manufacturers. In particular,  
Berne relates to processes “upstream” of product manufacturing as opposed to applicant’s  
invention, which relates to “down stream” processes (i.e. product distribution/sales estimation in  
the marketplace). Berne’s supply chain management is designed so that product manufacturing

processes can be optimized (e.g., using inventory control, just-in-time manufacturing, etc.) to meet a target sales forecast or a customer order. (See e.g., Berne ¶¶ 5 and 17).

Applicant notes that the Examiner mistakenly reads Berne as being somehow related to the problem to which applicant's invention is directed, namely estimating actual sales of specialty products in an inhomogeneous or non-uniform market place. (See e.g., Office Action page 9 citing Berne ¶¶ 1, 5, 9, 17, 19 and 42, and Office Action page 10 citing Berne ¶ 17).

Berne is not concerned with and does not mention or suggest product sales estimation.

Therefore, applicant submits that the combination of Felthausen and Berne is improper.

Applicant notes that Berne does not show any store sizing based on either wholesale or retail sales data and also does not show any geo-spatial projection to estimate sales of any product. In particular with respect to claims 1, 7 and 12, Berne does not show either "defining a first product specific universe using wholesale purchasing data to determine a product specific store size for a first plurality of retail outlets" or "defining a second product specific universe using sampled retail sales data to determine a product specific store size for a second plurality of retail outlets." Thus, claims 1, 7 and 12, which involve two distinct (i.e., wholesale and retail) store sizings for geo-spatial projection onto unsampled outlets, are not obvious from Felthausen and Berne even if the two references are combined.

For at least the reasons set forth above, claims 1, 7 and 12 and their dependent claims 2-6, 8-11, and 12-18, respectively, are patentable over Felthausen and Berne. Accordingly, the obviousness rejection of these claims should be reversed.

**VIII. CLAIMS APPENDIX**

The rejection of the following claims is appealed.

1. (currently amended) ~~A computer programmed to perform a method~~ A computer readable medium for estimating the sales of specialty products, ~~for estimating the sales of specialty products~~ the computer readable medium comprising instructions operable to perform the steps of:

defining a first product specific universe using wholesale purchasing data to determine a product specific store size for a first plurality of retail outlets;

defining a second product specific universe using sampled retail sales data to determine a product specific store size for a second plurality of retail outlets;

applying geo-spatial projection to the first product specific universe and the second product specific universe to determine product specific projection factors for retail outlets in the first and second universe; and

applying said product specific projection factors to sampled retail sales data for the product to estimate the sales of said specialty product in unsampled outlets.

2. (currently amended) ~~A computer programmed to perform the method for~~  
~~estimating the sales of specialty products according to~~ The computer readable medium of  
claim 1, wherein said sampled retail sales data identifies an authorizing agent for said sales and wherein the estimated sales are attributable to said authorizing agent.

3. (currently amended) ~~A computer programmed to perform the method for~~  
~~estimating the sales of specialty products according to~~ The computer readable medium of  
claim 2, wherein the specialty products are pharmaceuticals and wherein the authorizing agent is  
a physician.

4. (currently amended) ~~A computer programmed to perform the method for~~  
~~estimating the sales of specialty products according to~~ The computer readable medium of  
claim 1, wherein the second product specific universe represents retail facilities not represented  
in the first product specific universe.

5. (currently amended) ~~A computer programmed to perform the method for~~  
~~estimating the sales of specialty products according to~~ The computer readable medium of  
claim 4, wherein the second product specific universe includes unsampled retail facilities.

6. (currently amended) ~~A computer programmed to perform the method for~~  
~~estimating the sales of specialty products according to~~ The computer readable medium of  
claim 5, wherein the unsampled retail outlets are assigned an average product specific store  
size based upon the sampled retail sales data.

7. (currently amended) ~~A computer programmed to perform a method~~ A computer readable  
medium for estimating the prescriber activity for specialty pharmaceutical products, the  
computer readable medium comprising instructions operable to perform the steps of:

determining a product specific store size for a first plurality of retail outlets using wholesale sales data;

determining a product specific store size for a second plurality of retail outlets using retail sales data, said sales data identifying a prescriber who authorized the sales;

applying geo-spatial projection to the first plurality of retail outlets to determine product specific projection factors for the retail outlets for which sampled retail sales data is available;

applying geo-spatial projection to the second plurality of retail outlets to determine product specific projection factors for the retail outlets for which sampled retail sales data is available;

applying said product specific projection factors to sampled retail sales data for the product to estimate the total prescriber activity in a region of interest.

8. (currently amended) ~~A computer programmed to perform the method for estimating the prescriber activity according to~~ The computer readable medium of claim 7, wherein the second plurality of retail stores includes retail stores not represented in the first plurality of retail stores.

9. (currently amended) ~~A computer programmed to perform the method for estimating the prescriber activity according to~~ The computer readable medium of claim 8, wherein the second plurality of stores having sampled retail sales data and stores which have no sampled retail sales data associated therewith.



10. (currently amended) ~~A computer programmed to perform the method for estimating the prescriber activity according to~~ The computer readable medium of claim 8, wherein the stores in the second plurality of stores which have no sampled retail sales data are assigned an average product specific store size based upon the sampled retail sales data.

11. (currently amended) ~~A computer programmed to perform the method for estimating the prescriber activity according to~~ The computer readable medium of claim 8, wherein the combination of the first plurality of stores and the second plurality of stores represents substantially all of the retail outlets for the specialty product.

12. (original) A system for estimating the sales of specialty products comprising:

a first database for storing wholesale purchasing data;

a second database for storing sampled retail sales data;

a processor, the processor being operatively coupled to said first and second database, the processor:

determining a product specific store size for a first plurality of retail outlets based on the wholesale purchasing data;

determining a product specific store size for a second plurality of retail outlets not represented by the wholesale purchasing data;

applying geo-spatial projection to determine product specific projection factors for retail outlets in the first and second plurality of retail outlets for which there is sampled retail sales data; and

applying said product specific projection factors to sampled retail sales data for the product to estimate the sales of said specialty product in unsampled outlets.

13. (original) The system for estimating the sales of specialty products according to claim 12, wherein the second plurality of retail stores includes retail stores not represented in the first plurality of retail stores.

14. (original) The system for estimating the sales of specialty products according to claim 13, wherein the second plurality of stores include stores having sampled retail sales data and stores which have no sampled retail sales data associated therewith.

15. (original) The system for estimating the sales of specialty products according to claim 14, wherein the stores in the second plurality of stores which have no sampled retail sales data are assigned an average product specific store size based upon the sampled retail sales data.

16. (original) The system for estimating the sales of specialty products according to claim 15, wherein the combination of the first plurality of stores and the second plurality of stores represents substantially all of the retail outlets for the specialty product.

17. (original) The system for estimating the sales of specialty products according to claim 12, wherein said sampled retail sales data identifies an authorizing agent for said sales and wherein the processor attributes the estimated sales to said authorizing agent.

18. (original) The system for estimating the sales of specialty products according to claim 17, wherein the specialty products are pharmaceuticals and wherein the authorizing agent is a physician.

**IX. EVIDENCE APPENDIX**

None.

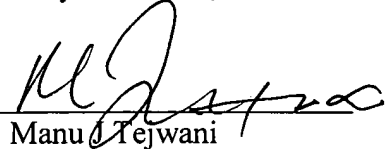
X, **RELATED PROCEEDINGS APPENDIX**

None.

For the foregoing reasons, the Examiner' rejection of claims 1-18 should  
be reversed.

Respectfully submitted,

Dated: \_\_\_\_\_

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